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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,724	07/08/2005	Stephane Lavallee	Beaumont-12	5647

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P O Box 226
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EXAMINER

LARYEA, LAWRENCE N

ART UNIT	PAPER NUMBER
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3768

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,724	Applicant(s) LAVALLEE ET AL.	
	Examiner LAWRENCE N. LARYEA	Art Unit 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Examiner acknowledges Applicant's amendment and remarks filed 04 December 2008

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 11 are rejected under 35 U.S.C. **102(e)** as being anticipated by **Simon et al (US Patent 6,990,368)**.

3. Re Claims 1 and 11: **Simon et al** teach a method for determining the position of a device providing images by means of X rays with respect to a reference frame (three-dimensional space) as an image of an object is taken, said method comprising the steps

determining the position of a target (**150 and rigid localization**) with respect to the device (**105**), said target being mechanically connected to the object (**See Col. 5, lines 8-18**), based on an impression of the target on the image of the object (patient);

determining the position of the target with respect to the reference frame (three-dimensional space); and determining the position of the device with respect to the reference frame based on the position of the target with respect to the device, and the position of the target with respect to the reference frame .

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Simon et al as applied in Claims 1**, in view of **Zheng et al (Patent 7,117,027)**.

6. **Simon et al** teach the claimed invention see supra rejection, **Simon et al** does not teach that method/system includes a localization system and a rigid localization body **(2)** mechanically connected to the target.

7. **Zheng et al** does not teach that the target comprises X rays transparent elements and X rays opaque elements and a hold means.

8. Re Claims 2-3 and 7: **Zheng et al** teach a method/system for determining the position of a device providing images by means of x-rays with respect to the reference frame as an image of an object is taken characterized in that the position of the device **(16)** with respect to a reference frame is determined based on the determination of the position with respect to the device **(16)** **(See Col. 7, lines 1-14, Col. 4, lines 54-67)** of a target **(1)**, mechanically connected to the object **(bone)**, by means of the impression **(29)** of the target on the

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image, a localization system **(4)** and a rigid localization body **(2)** mechanically connected to the target.

9. Re Claims 4-6: **Zheng et al** teach a system for determining the position of a device having a configuration of the target is determined by a feeler **(22)** connected to a rigid localization body **(28)** having its position with respect to the reference frame determined by a localization system and the target is capable of been removed from the object between the acquisition of two images (first and second images) (**See Col.7, lines 52-67**).

It would have been obvious to one having ordinary skill in the art at the time invention was made to modify the system/method of **Simon et al** to include a localization system and a rigid localization body **(2)** mechanically connected to the target in order to assist orthopedic surgeon to generate a computer-based 3D representations of a patient's bone (**See Col.2, lines 15-37**) as taught by **Zheng et al**.

10. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Simon et al** as applied in Claims 1, in view of **Krause et al (US Pub. 2004/0068187)**.

11. **Simon et al** teach that the target can be x-ray opaque or transparent (**See Col.4, lines 7-19**).

12. **Simon et al** does not teach that a system for determining the position of a device wherein a target comprises hold means with three supports targets.

13. **Krause et al** teach a system for determining the position of a device wherein a target comprises X rays transparent elements, X rays opaque elements and a hold

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means (**See Figs 18, 19, 27** Paragraph [0174], [0178] and [0183]) in order to assist orthopedic surgeon to generate a computer-based 3D model of a patient's bone and computer-based surgical plans.

It would have been obvious to one having ordinary skill in the art at the time invention was made to modify the system/method for determining the position of a device of **Simon et al** to include a target which comprises X rays transparent elements and X rays opaque elements and a hold means of **Krause et al** in order to assist orthopedic surgeon to generate a computer-based 3D model of a patient's bone and computer-based surgical plans (**See Paragraph [0003]** and abstract) as taught by **Krause et al**.

Response to Arguments

14. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAWRENCE N. LARYEA whose telephone number is (571)272-9060. The examiner can normally be reached on 9:30 a.m.-5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Eric F Winakur/
Primary Examiner, Art Unit 3768